

CHAPTER 9

DISTRESS SIGNALS

9-1. **GENERAL.** This chapter contains information about military pyrotechnic distress signal devices authorized for US Army watercraft. These devices have no expiration date. This chapter describes the following pyrotechnic devices:

- Signal, Illumination, Ground, Red Star, Parachute.
- Marker, Location, Marine,
- Signal, Smoke and Illumination, Marine.

9-2. **PRECAUTIONS.** Precautions should be taken when using, handling, and storing pyrotechnic devices. The following are warnings, precautions, and procedures for these devices.

WARNING

Existing safety requirements and precautions shall be complied with by all personnel handling pyrotechnic signal flares. Pyrotechnics are hazardous due to the nature of their explosive, flammable, or toxic tiller.

- DO NOT remove the signal device from its hermetically sealed container until immediately before use.
- Read and follow the firing instructions on the signal body.
- Handle pyrotechnic flares with the same care as high explosives.
- Protect flares and signals from moisture.
- Remove and replace flares when there is evidence of moisture.
- Disassembly of flares is strictly prohibited.
- DO NOT use flares when they are rusted, dented, or deformed. (They must be segregated for disposal.)
- Avoid any rough handling, throwing, or dropping of pyrotechnics.
- DO NOT look into the firing end of any signaling device.
- Remove flares and signals from watercraft placed in storage.

9-3. **MISFIRES.** Misfired signals must NOT be approached until at least 30 minutes have elapsed after firing was attempted. All misfires and malfunctions involving these signals will be reported through the appropriate munitions supply channels.

9-4. **AUTHORIZED PYROTECHNICS.** US Army watercraft are authorized certain pyrotechnics (see Table 9-1, page 9-2). These pyrotechnics are described below.

a. **Signal, Illumination, Ground, Red Star, Parachute, M126A.** This rocket-propelled, fin-stabilized device, is a hand launched distress signal for watercraft operating in ocean or coastal waters. A description of the signal is shown in Figure 9-1, page 9-3.

Table 9-1. US Army watercraft authorized pyrotechnics

Type of Watercraft	Illumination Red Star Parachute	Marker Location Marine	Smoke and Illumination
LSV	12	2	0
LCU 2000	12	2	0
LCU 1600	12	1	0
LT (800 series)	12	2	0
LT (100 foot)	12	2	0
ST (65 foot)	0	0	12
LCM-8	0	0	12
LARC XV	0	0	12
CHI	0	0	12
FMS	0	0	12
SLWT	0	0	12
BD	0	0	12

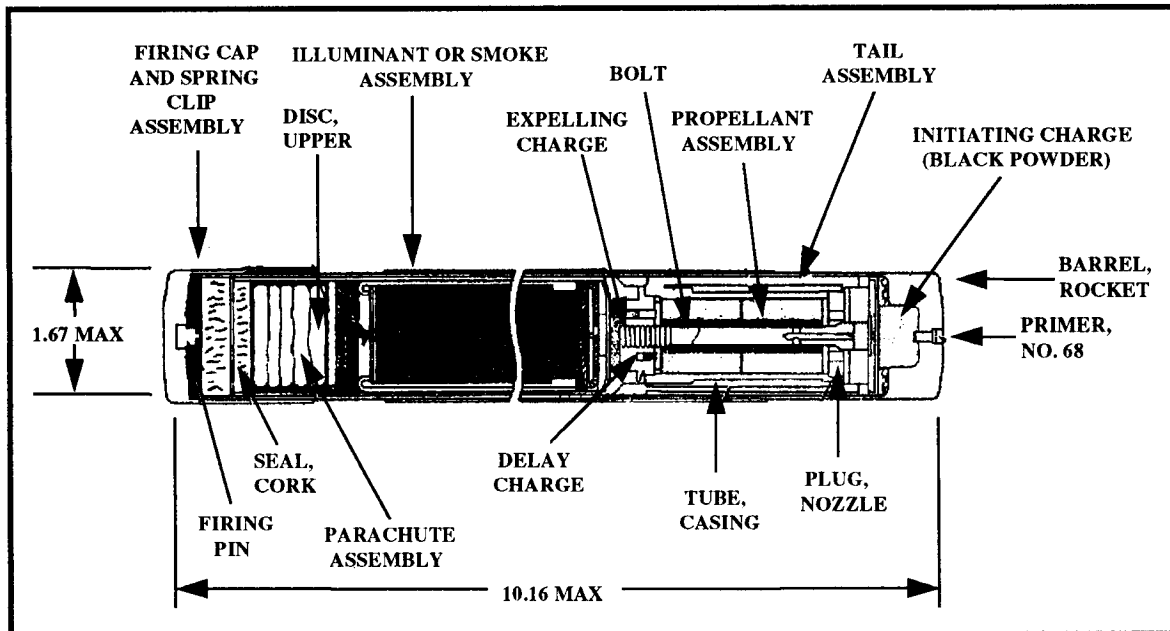


Figure 9-1. Signal, illumination red star, parachute - M126A1

(1) **Intended use.** When fired vertically, the signal projects to an altitude of 650 to 700 feet. It also produces a parachute-suspended red star that burns for approximately 50 seconds while descending at the rate of 8 feet per second.

(2) **Firing instructions.** Perform the following to fire the illumination signal.

WARNING

Prior to pulling the lever downward, position all fingers below top of signal.

- Remove the signal in accordance with instructions printed on the container.
- Hold the signal in the left hand (red knurled band up) with thumb and forefingers in alignment with the red band.
- Remove the firing cap from the lower end of the signal
- Point the ejection end of the signal (the end opposite the red knurled band) away from the body and away from personnel, equipment, and materials. SLOWLY push the firing cap onto the primer (red band) end until the cap is aligned with the lower edge of the knurled band. DO NOT permit the cap to go beyond the lower edge of the band.
- Hold the signal FIRMLY at arm's length with the left hand in a vertical position (90 degrees) with the firing cap downward.
- Strike the firing cap bottom sharply with the palm of the right hand, keeping the left arm rigid.

(3) **Procurement.** Order the illumination signal by NSN 1370-00-629-2336 (DODIC L311).

(4) **Disposal of illumination signal.** Dispose of the illumination signal IAW HAZMAT/Environmental SOP.

b. **Marker, Location, Marine, Mk 58 Mod 1.** This marker consists of a cylindrical tin can (21.78 inches long and 5.03 inches in diameter). The ignition end of the marker has three holes, two for smoke and flame emission and one for entry of water to activate the signal. Adhesive foil discs hermetically seal the two emission holes and a reinforced adhesive foil strip with a rectangular pull hermetically seals the hole for water activation. The adhesive foil seals are protected during handling and shipping by a replaceable polyethylene protective cover. A description of the marker is shown in Figure 9-2.

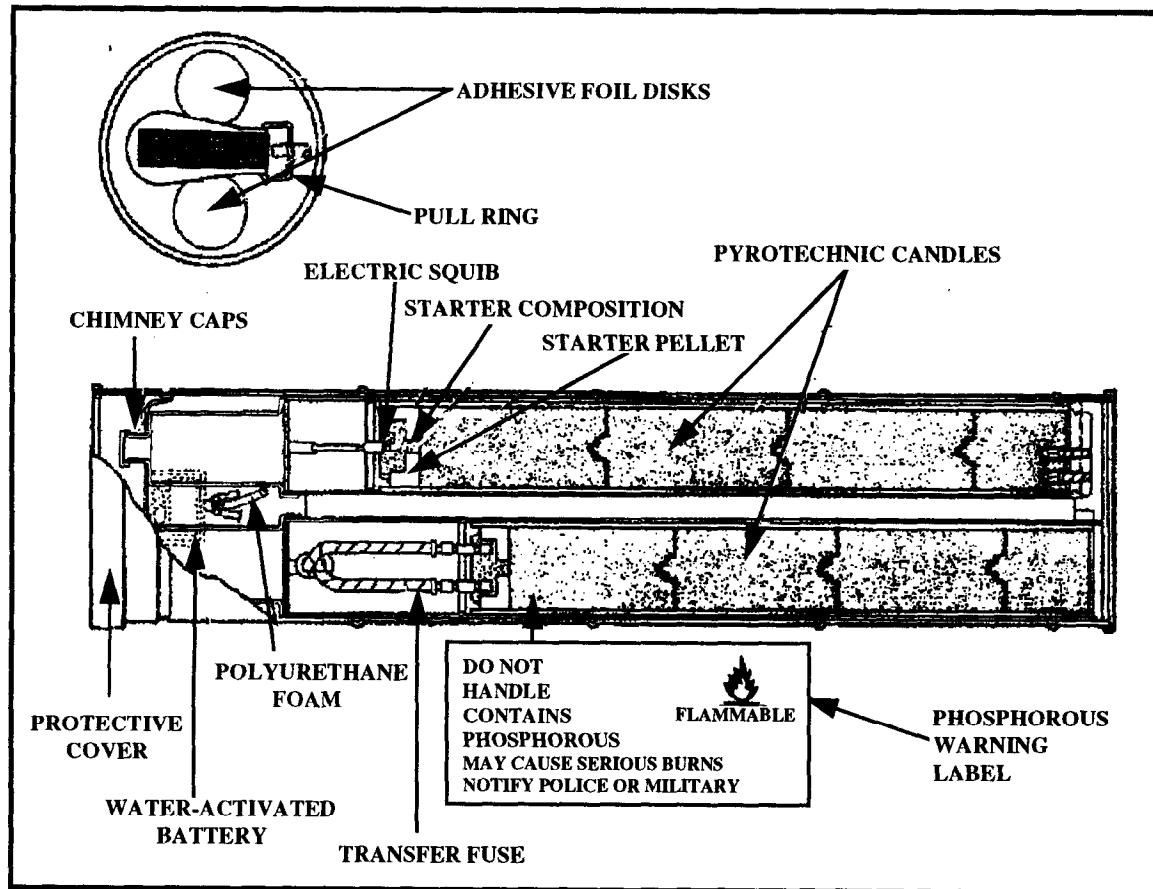


Figure 9-2. Marine location marker, Mk 58 Mod 1

(1) **Intended use.** This marker is designed for day or night use. It can be used for man overboard and any other condition calling for long-burning, smoke and flame reference point marker on the ocean surface. It produces a yellow flame and white smoke for a minimum of 40 minutes and a maximum of 60 minutes. It is visible for at least 3 miles under normal conditions.

(2) **Operation.** Perform the following to use the location marker.

- Remove the polyethylene protective cover.
- Remove the pull ring reinforced adhesive foil strip.
- Throw the signal overboard with life ring. The signal will activate within

25 seconds of impacting the water.

(3) **Procurement.** Order the location marker by NSN 1370-01-074-0591 (DODIC L580).

c. **Signal, Smoke and Illumination, Marine, Mk 124 Mod 0.** This signal is made of metal and cylinder-filled with illuminant composition in one end and smoke in the other. Each end is fitted with a plastic cap. The cap on the flare end has molded protrusions or beads on the face for night identification. The smoke (day signal) end cap is smooth. A label around the signal body further identifies each end and provides precise instructions for use. A description of this smoke and illumination signal is shown in Figure 9-3.

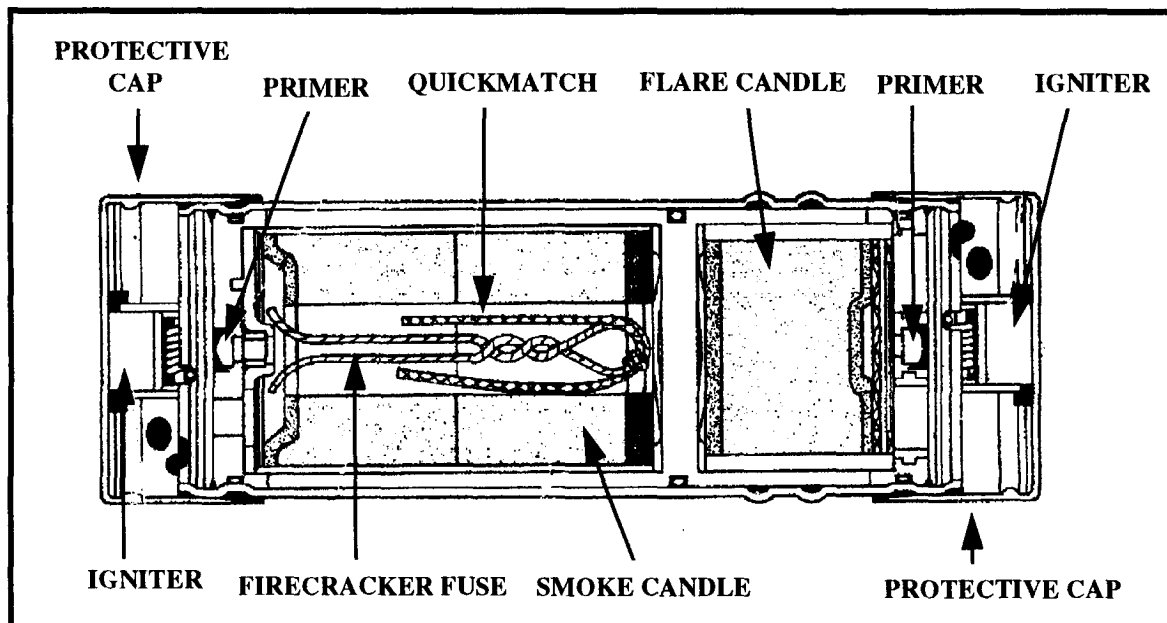


Figure 9-3. Marine smoke and illumination signal, Mk 124 Mod 0

(1) **Intended use.** This signal can be used for day or night signaling. The signal is a one-handed operable device intended for rescue use. Its small size permits it to be carried in life vests and on life rafts.

(2) **Firing instructions.** After choosing the type of display desired, smoke for day or flare for night, operate the signal as follows:

WARNING

Prior to pulling the lever downward, position all fingers below top of signal.

- Remove the protective cap from the end to be ignited.
- Slide the lever horizontally to the fully extended position.
- Pull the lever downward until firing pin is released.
- If the smoke end flames, briefly immerse in water or hold against solid object.
- During and after ignition, hold signal firmly with arm fully extended overhead at an angle of 45 degrees from the body.
- DO NOT direct either end of the signal toward user or other personnel.
- After using the signal, douse the used end in water to cool. If used on land, place the signal on a noncombustible surface to cool. Save the signal for use of other end in case it is needed.

WARNING

Under no circumstances shall both ends of this signal be ignited at the same time.

(3) **Procurement.** Order the smoke and illumination signal by NSN 1370-01-030-8330 (DODIC L283).

NOTE

When ordering, you may receive Signal, Smoke and Illumination, Marine: An Mk 13 Mod 0 (NSN 1370-00-309-5028) instead of the Mk 124 Mod 0 signal. The Mk 13 Mod 0 signal (see Figure 9-4) is being issued until the stock is depleted.

9-5. **ANNUAL VISUAL INSPECTION.** Pyrotechnics shall be inspected annually for current expiration date (if applicable), corrosion, dents, swelling or punctures, missing safety pins and caps, and the presence of chemical odors. Turn in defective or damaged pyrotechnics to the nearest Army supply facility.

9-6. **TRAINING.** No specific devices are designated for training use. To promote the safe and effective use of pyrotechnics, all units shall provide annual periods of instruction to develop and maintain proficiency and confidence in the military distress signals. The following training methods are recommended:

- Training shall cover the particular pyrotechnic item used aboard that watercraft, its manner of use, and safety precautions.
- A demonstration allows first hand observation of the device. At least one of each device will be expended on board. No additional expenditure is deemed necessary. Training will be combined with several units/watercraft to reduce the number of expended devices.
- Pyrotechnics used for training will be fired from the oldest lots on hand.
- To prevent a false sighting report, units that conduct training will notify the appropriate Harbormaster and US Coast Guard office well in advance, noting the time, place, and pyrotechnic devices to be used.

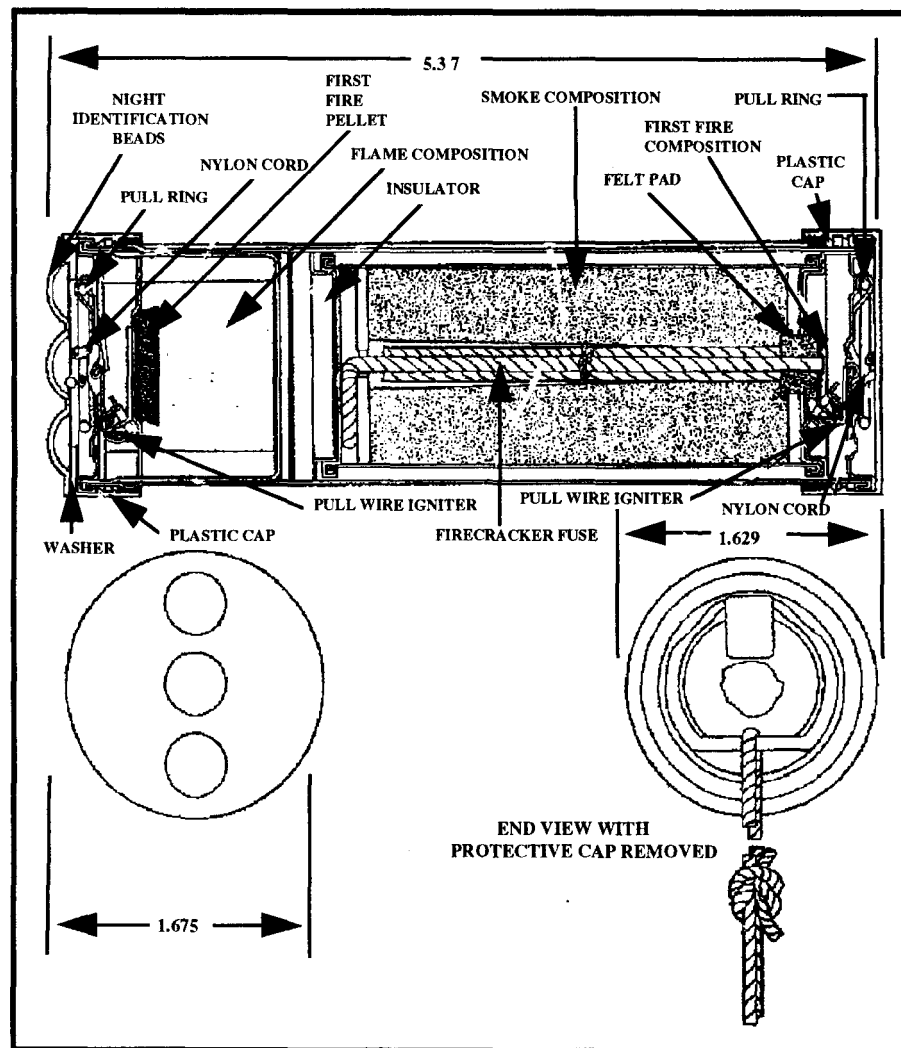


Figure 9-4. Marine smoke and illumination signal, Mk 13